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ABSTRACT

A project was introduced in the College of Education at Eastern Illinois University to assist faculty, through inservice training, to become more knowledgeable about computer applications and limitations. Practical needs of faculty included word processing, statistical analysis, database manipulation, electronic mail, file transfers, file management, and operating systems, all available through packages on personal and/or mainframe computers. The activities included: (1) establishment of a standing committee with one faculty member appointed from each of the major academic units of the university; (2) dialogues with respect to computer needs and available resources; (3) workshops presenting information on the use of electronic mail and electronic bulletin boards; (4) tutoring of individual faculty members to improve their ability to use computers and to deal with problems and questions in "hands-on" computer sessions; and (5) liaison work with the university administration and computer services. In its second year of operation, the program has been judged a success. Reactions of College of Education faculty have been positive; faculty members have participated in the workshops and have increased their use of computing time and resources. A diagram of Eastern Illinois' local area network is attached. (LL)

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TEACHER EDUCATION FACULTY AND COMPUTER COMPETENCY

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TEACHER EDUCATION FACULTY AND COMPUTER COMPETENCY

Abstract:

This paper describes how the faculty in the College of Education at Eastern Illinois University has been assisted in becoming more computer-competent through an internal in-service program focused on the faculty's practical needs.

Introduction:

Eastern Illinois University is a comprehensive state university with a largely residential population of approximately 10,000 students and 600 faculty. Its Office of Academic Computing estimates that there are about 1600 personal computers on campus. About 600 of these are connected to a local area network which provides access to five mainframe computers and several file and printer servers (see attachment 1). Access is also provided to electronic mail, conferencing, bulletin boards, programming languages,

NovaNet (formerly known as PLATO), and various statistical, manufacturing, and simulation software. In addition, this network provides a gateway to a tremendous variety of other user services, including supercomputing facilities.

About 300 of Eastern's 600 faculty have user accounts for the use of the local area network, mainframe computers, and other distributed computing services. About 25 of the 60 Eastern College of Education faculty have such accounts.

Strategic Thesis:

Computer-based education is generally acknowledged to be, at the very least, a promising learning technology for schools. If future teachers are to be sincerely disposed toward the use of such technology, they should see it as valued and employed by their own teacher-education professors. This is true because most teachers are inclined to teach as they were taught. But Teacher Education faculty are not generally known for their computer competency (as are, for example, Mathematics and Engineering faculty). Therefore, a strategy is needed to help Teacher Education faculty become more computer-competent.

Notion of Computer Competency:

About ten years ago one of us argued (Barger, 1983) that computer competency, or literacy (as it was then more popularly known), should involve three elements: knowledge of the structural design and operation of a computer, knowledge of computer applications and limitations, and ability to do minimum level programming. Today we would argue only for the second of these requirements (namely, knowledge of computer applications and limitations). It may well be helpful to know about the structural design of the computer and its internal states. It may also be useful to know how to write programs to make the computer perform various operations. But in fact, the only essential element for making use of computers is to know how and when to use them. Thus, in the tradition of John Dewey, we believe that Teacher Education faculty will become serious about computers when they are shown how and when computers can be truly useful for their work.

The kinds of things for which Teacher Education faculty (or any kind of faculty, for that matter) are likely to use computers are word-processing, statistical analysis, data-base manipulation, bulletin board and news-group conferencing, electronic mail, file transfers, file

management, and operating systems. None of these utilities requires a knowledge of programming. All of them are available through packages on either personal and/or mainframe computers.

One Institution's Approach:

In 1990, Eastern Illinois University established a standing committee known as the Computer Resource Faculty (CRF). This group was jointly appointed by the Provost and the Associate Vice President for Computer and Telecommunications Services. At least one faculty member was appointed from each of the major academic units of the University.

The idea behind the formation of this group was that it would serve as a buffer between the faculty of the various colleges of the University and the staff of the University's Computer Services offices. Some of the faculty seemed to feel that the staff of Computer Services, being computer professionals, were too technically oriented to be able to interface with the faculty's academic problems. It was thought that having at least one faculty member within each college to whom that college's faculty could come with their

computer-related questions and problems would help alleviate this situation. This college-based CRF member would either answer the faculty member's questions directly or would refer them to a specific staff person in one of the Computer Services offices. This would reduce the number of requests for information coming directly from the colleges to Computer Services. It would also provide a more local, approachable, "one-of-us" type persons in each college who could serve as a point of first approach for college faculty. Also, as time permitted, the CRF member could provide computer-related training sessions or workshops for members of his/her college. At present, CRF members are not given any credit-unit recognition for their assigned CRF work. They do, however, receive up to $500.00 in annual travel grants from their college deans. The first author of this paper was appointed as the CRF member from the University's College of Education (the second author is the CRF member for the College of Applied Sciences). The first author began to implement the above-stated thesis and understanding of computer competency in the College of Education by means of the following activities:

- visits to department meetings in each of the College of Education's departments to meet with assembled department faculty and dialogue with them on their

computer needs and answer questions about computer-related resources available to them

- workshops specifically for College of Education faculty on the use of electronic mail as a means of speedy interaction with colleagues on campus, as well as around the world

- workshops specifically for College of Education faculty on the use of electronic bulletin boards as a way of discussing current concerns and receiving information useful to the faculty's teaching and/or research interests

- contacts on an individual basis with faculty members in the College of Education's various departments to alert them to computer-based resources related to their particular disciplinary interests

- tutoring of individual faculty members (including the Dean of the College of Education and the Dean of the College of Applied Sciences) to improve their ability to use computers and to deal with their problems and questions in "hands-on" computer sessions

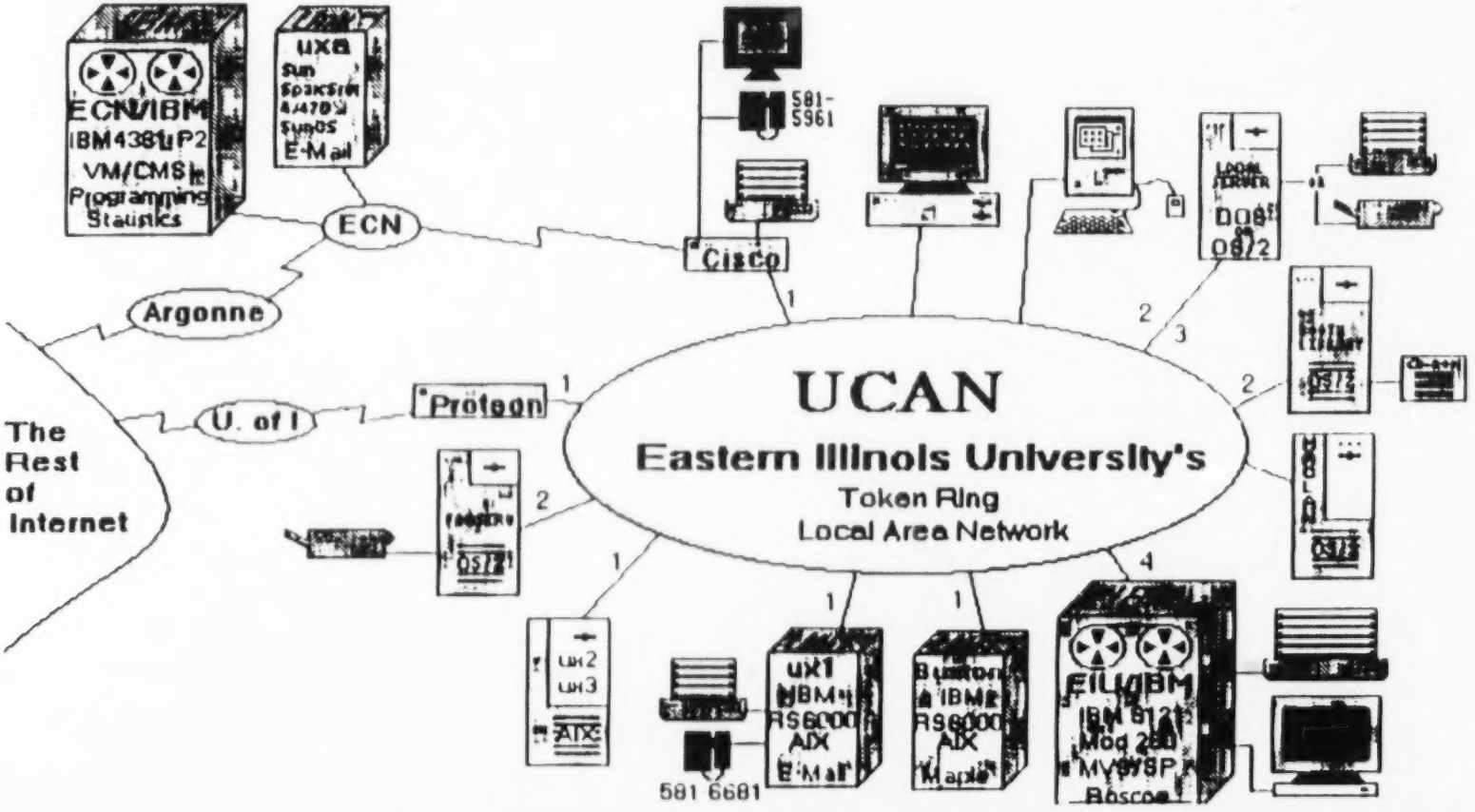
- liaison work with the University administration and with Computer Services (usually handled through the medium of CRF meetings) to assure a smooth two-way flow of information regarding computer-related matters, including the provision of resources to the various colleges

Evaluation:

In the second year of the operation of the CRF program, this strategy has been judged to be a success (at least in the College of Education), based upon the positive reaction of College of Education faculty, their participation in computer related workshops which have been presented, and their increased use of computing time and resources.

Reference

Barger, Robert N. (1983). Computer Literacy: Toward a Clearer Definition. T.H.E. Journal, 11 (2), 108-12.



ATTACHMENT 1

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